
IX. *The Characters of seven Genera of Bats with foliaceous Appendages to the Nose.* By William Elford Leach, M.D. F.R.S. and L.S.

Read March 7, 1820.

I HAVE the pleasure of communicating to the Linnean Society the characters of five genera of the natural family of Bats which have not hitherto been observed by naturalists; and I add the distinguishing marks of *VAMPYRUS*, a genus lately indicated, but no where characterized, by my friend the Chevalier Geoffroy St. Hillaire, who in a former paper, to which he has referred, had neither described nor figured the *posterior molaris* of the upper jaw*.

The details of *MEGADERMA* *Geoff.* are also given, not only for the purpose of showing the characters of its grinding teeth and its affinity with *NYCTOPHILUS*, but to prove that the characters which Cuvier has attributed to that genus, with some degree of doubt, are perfectly correct (*Règne Anim.* i. 127.), namely, the absence of the superior incisors.

On a future occasion it is my intention to lay before the Society the details of all such new genera as may be discovered by my friends in different parts of the world, which shall be followed with descriptions of all the species.

To further my purpose, I solicit the aid of travelling naturalists, and request them to have the goodness to send me specimens of Bats (preserved if possible in spirits) from every part of the world.

* *Annal. de Mus.* xv. 184. pl. 2.

VESPERTILIONIDÆ.

Rhinophyllis instructæ.

STIRPIUM ET GENERUM SYNOPSIS.

STIRPS 1. *Pedes antici indice 1-articulato; digito medio 4-articulato; digitis quarto et quinto triarticulatis. Aures distantes, mediocres, auriculâ instructæ.*

Gen. 1. ARTIBEUS.

*Dentes incisores $\frac{4}{6}$: superiores inæquales: duo medii longiores bifidi.
inferiores subæquales, truncati: duo medii anticè canaliculati.
molares $\frac{8}{10}$: inferiorum posterior minutus.*

Gen. 2. MONOPHYLLUS.

*Dentes incisores $\frac{4}{6}$: superiores inæquales: duo medii longiores bifidi; exteriores externè truncati.
molares $\frac{10}{12}$: superiorum duo antici distantes, trifidi: reliqui tuberculati.
inferiorum tres antici trifidi; reliqui tuberculati.*

STIRPS 2. *Pedes antici indice biarticulato; digito medio 4-articulato; digitis quarto et quinto triarticulatis. Aures magnæ approximatæ, auriculâ instructæ.*

Gen. 3. MORMOOPS.

*Dentes incisores $\frac{4}{6}$: superiores inæquales: medii lati emarginati; exteriores minimi obliquè acuminati, acuti.
inferiores æquales, trifidi.
molares $\frac{12}{14}$.*

STIRPS 3. *Pedes antici indice 1-articulato; digitis medio, quarto et quinto 3-articulatis. Aures magnæ coalitæ, auriculâ instructæ.*

Gen. 4. NYCTOPHILUS.

*Dentes incisores $\frac{4}{6}$: superiores conici.
inferiores æquales, trifidi.
molares $\frac{8}{10}$: superiorum primus acutus: secundus et tertius 4-fidi; quartus trifidus.
inferiorum primus conicus; secundus, tertius et quartus tuberculati.*

Gen. 5. MEGADERMA.

*Dentes incisores $\frac{4}{6}$: inferiores æquales trifidi.
molares $\frac{8}{10}$: superiorum primus acuminatus: cæteri tuberculati.
inferiorum primus et secundus acuminati; cæteri acutè tuberculati.*

STIRPS 4. *Pedes antici indice biarticulato; digito medio 4-articulato; digitis quarto et quinto triarticulatis. Aures distantes, auriculâ instructæ.*

Gen. 6. VAMPYRUS.

*Dentes incisores $\frac{4}{6}$: superiores medii longiores, externè truncati; exteriores brevissimi obtusi.
inferiores æquales, obtusi.
molares $\frac{10}{12}$.*

Gen. 7. MADATÆUS.

*Dentes incisores $\frac{4}{6}$: superiores medii longiores, bifidi; exteriores brevissimi obtusi.
inferiores æquales, acuti.
molares $\frac{8}{10}$.*

Gen. 1. ARTIBEUS.

Dentes incisores $\frac{4}{4}$: *superiores* medii bifidi; *exteriorres truncati breves.*

inferiores truncati; duo *medii sublongiores*, *anticè canaliculati.*

— *lanarii* $\frac{2}{2}$: *superiores* *majores*; ad *basin internè marginati*, *posticè dilatati.*

— *molares* $\frac{8}{0}$: *superiores* ad *basin internè dilatati*; *primus minor*; *tertius major.*

inferiorum *primus et secundus externè acuminati*; *secundo longiore*; *tertius et quartus latiores*, *internè tuberculati*; *quintus minutissimus.*

Rhinophylli 2: uno *horizontali*; altero *verticali.*

Pedes postici suspensorio uno, brevi, recto, marginali.

Cauda nulla.

ARTIBEUS JAMAICENSIS.

Habitat in Jamaica.

Mus. Brookes, nost.

Supra fuscescenti-brunneus, subtus murinus. Aures, rhinophylli et membranæ omnes fuscescentes.

Aures rotundatæ. Rhinophyllus horizontalis subundulatus; verticalis acuminatus, anticè utrinque lineâ impressa notatus.

Membrana postica usque ad basin ferè emarginata.

Cranium latiusculum, facie vix latius. Facies obtusa.

Gen. 2. MONOPHYLLUS.

Dentes incisores $\frac{4}{0}$: *superiores* inæquales: duo *medii longiores*, bifidi; *exteriorres teretes*, *externè truncati et ad basin dilatati.*

Dentes lanarii $\frac{2}{2}$: *superiores* ad basin anticè et posticè dilatati.
inferiores internè ad basin marginati; marginè posticè dilatato.

— *molares* $\frac{1}{2} \frac{0}{2}$: *superiorum* duo antici distantes, trifidi; cæteri externè et internè tuberculati.

superiorum tres antici trifidi (secundus et tertius distantes); cæteri externè et internè tuberculati.

Rhinophyllus 1 *erectus*.

Pedes postici suspensorio uno marginali.

Cauda brevis.

MONOPHYLLUS REDMANI.

Habitat in Jamaica.

Mus. nost. Communicavit Dom. R. S. Redman.

Color supra fuscus, subtus murinus. Membranæ omnes, Aures et *Rhinophyllus* fuscus.

Rhinophyllus acutus albido-villosus. Aures rotundatae. Barba elongata.

Cranium facie paulo latius. Facies elongata.

Gen. 3. MORMOOPS.

Dentes incisores $\frac{4}{4}$: *superiores* inæquales: medii latè-emarginati; laterales minimi, obliquè acuminati, acuti.

inferiores æquales trifidi; laciniis rotundatis.

— *lanarii* $\frac{2}{2}$: *superiores* duplo longiores, subcompressi, anticè canaliculati, ad basin internè dilatati.

inferiores ad basin externè et internè dilatati.

Dentes



Dentes molares $\frac{1}{2}$: *superiorum* anterior parvus, acutus, ad basin externè, et posticè internè dilatatus; tertius, quartus et quintus ad basin internè tuberculato-dilatati (tertio et quarto externè 3-mammillatis, internè excavato-bidentatis); quintus externè 1-mammillatus, internè excavato-bidentatus.

inferiorum tres antici acuti, compressi, externè dilatati (secundo breviore; primo et tertio æqualibus); quartus, quintus et sextus sublongiores, externè ad basin dilatati, supernè excavato-5-dentati.

Rhinophyllus 1 erectus, cum auribus confluens.

Pedes postici suspensorio uno, recto, marginali.

Cauda ad membranæ posticæ apicem non producta; articulo ultimo libero.

Caput fronte abruptè elevato. *Labium superius* lobatum, medio crenatum; inferius in membranam trilobam productum, ad medium processu carnoso, diadema referente, instratum. *Mentum* utrinque in membranam dilatatum; membranis cum auribus connexis. *Lingua* papillis omnibus retrorsum reflexis; anterioribus bifidis; posterioribus majoribus multifidis. *Palatum* transversim elevatum; jugis posterioribus undatis.

Cranium facie abruptè efformata. *Ossa nasalia* inter maxillaria immersa. *Os inter-parietale* cum parietalibus lateralibus non coalitum.

MORMOOPS BLAINVILLII.

TAB. VII.

Habitat in Jamaica. Dom. Lewis.

Mus. D. Brookes.

Rhinophyllus

Rhinophyllus plicatus. Aures supernè bilobæ. Processus labialis diademiformis, et nasus irregulariter tuberculati.
Amico meo Henrico de Blainville sit hæc species sacra.

Gen. 4. NYCTOPHILUS.

- Dentes incisores* $\frac{2}{6}$: *superiores* elongati, conici, acuti.
inferiores æquales, trifidi; laciniis rotundatis.
- *lanarii* $\frac{2}{2}$: elongati, conici.
superiores simplices.
inferiores posticè processu acuto armati.
- *molares* $\frac{8}{8}$: *superiorum* anticus acutus, posticè 1-tuberculatus; secundus et tertius 4-tuberculati; quartus 3-tuberculatus.
inferiorum anticus acutus, simplex, conicus; secundus, tertius et quartus tuberculati.

Rhinophylli duo erecti; posteriore longiore.

Pedes postici suspensorio uno, recto, marginali.

Cauda ossea (articulis quinque exsertis) ad membranæ apicem producta.

NYCTOPHILUS GEOFFROYI.

Habitat —.

Mus. D. Brookes.

Dorsum lutescente-fuscum. Venter, Pectus et Gula sordidè albidae. Aures latæ, mediocres. Membranæ fuscescente-nigræ. Cauda acuminata.

Amico meo Geoffroy St. Hillaire sacra.

Gen. 5. MEGADERMA*.

Megaderma, Geoffroy, Cuvier.

Dentes incisores $\frac{9}{4}$: *inferiores* trifidi, æquales; laciniis rotundatis.

* Os intermaxillare cartilagineum, molle.

Dentes

Dentes lanarii $\frac{3}{2}$: *superiores* longiores, ad basin anticè et posticè acuminato-producti.

— *molares* $\frac{8}{10}$: *superiorum* anticus acuminatus, longior, ad basin internè dilatatus, marginatus; cæteri angulati, tuberculati; secundus et tertius ad basin posticè dilatati.

inferiorum duo antici acuminati, ad basin dilatati (primo breviore); reliqui acuminato-tuberculati, ad basin externè marginati: tuberculis exterioribus.

Rhinophylli duo confluentes; uno horizontali, altero verticali.

Pedes postici suspensorio uno, recto, marginali.

Cauda nulla.

MEGADERMA FRONS.

M. *rhinophyllo* anteriore dilatato, auriculis elongatis acuminatis, internè ad basin lobatis; lobo simplici.

Feuille. *Daub. Acad. des Sc.* (1759) 374.

Megaderma Frons. *Geoff. St. Hill. Ann. du Mus.* xv. 192.

Habitat in Africa, apud Senegal et Cape Coast.

Mus. Brookes, nost.

Membrana postica rotundato-emarginata. Caput parvum. Cranium rotundatum. Facies cranio angustior, obtusa.

Gen. 6. VAMPYRUS.

Vampire, *Geoffroy St. Hillaire*.

Dentes incisores $\frac{4}{4}$: *superiores* medii internè longiores; exteiiores brevissimi obtusi.

inferiores æquales, ad apicem excavati; exteiiores ante medios inserti.

— *lanarii* $\frac{2}{2}$: *superiores* subtenuiores, paululum breviores, ad basin posticè internè dilatati.

inferiores

inferiores internè versus basin abruptè dilatati; parte dilatata usque ad molarem anticum producta.

Dentes molares $\frac{1.0}{1.2}$: *superiorum*, anterior acuminatus posticè declivis et paululum productus; secundus longior acuminatus, ad basin anticè et internè posticè dilatatus; tertius et quartus externè excavati, internè laciniis duabus acuminatis (hōc anticè processu obtuso); quintus angustissimus obtusè trifidus; lacinia interiore breviore.

inferorum anterior et secundus internè excavati; hōc acutiore; tertius acuminatus posticè ad basin subproductus; quartus et quintus maiores longiores 5-fidi; sextus trifidus.

Rhinophylli 2 confluentes; uno erecto, altero horizontali.

Caput facie gradatim efformatâ. *Labias* implicia. *Lingua* papillis omnibus retrorsum reflexis; anterioribus mediis distinctè, posterioribus nonnullis obsoletissimè bifidis.

Spec. 1. VAMPYRUS SPECTRUM.

Phyllostoma Spectrum. *Geoff. St. Hillaire Ann. du Mus.* xv. 174.

pl. 2.

Vespertilio Spectrum. *Linn. Syst. Nat.* xii. i. 46.

Membrana postica posticè ad medium rotundato-emarginata.

Gen.

Gen. 7. MADATÆUS.

Dentes incisores $\frac{4}{4}$: *superiores* inæquales; duo medii longiores bifidi, laciniis obtusis; laterales brevissimi obtusi.

inferiores æquales, simplices, acuti.

— *lanarii* $\frac{2}{2}$: *superiores* longiores et latiores.

— *molares* $\frac{8}{0}$: *superiores* dente anteriore parvo acuto posticè declivi, ad basin internè subdilatato; secundo longiore acuto, anticè acuto posticè subdeclivi ad basin internè dilatato, processu obtusiusculo armato; tertio et quarto externè bifidis, laciniis obtusiusculis, ad bases internè valde dilatatis, bituberculatis; dente quarto tertio breviore, laciniâ externâ posticâ breviore.

— *inferiores* dente anteriore equaliter acuminato obtusiusculo; secundo longiore internè canaliculato posticè ad basin dilatato; tertio internè et externè laciniis quatuor obtusis; quarto internè laciniis tribus, internè laciniâ unâ anticâ instructo; quinto minimo trituberculato.

Rhinophylli 2: uno verticali; altero lunato horizontali.

Pedes postici suspensoriis duobus brevissimis instructi: *digiti* æquales: *ungues* parvi compressi.

Cauda 0.

Labia papillis molibus compressis fimbriata. *Lingua* anticè filamentis compressis bifidis posticè spectantibus instructa; perpaucis ad apicem linguae majoribus: lingua pone medium tuberculis 2—5-fidis antrorum spectantibus, et pos-